



FEDERAL COMMUNICATIONS COMMISSION

**CONSOLIDATED LICENSING SYSTEM**

# Consolidated Licensing System Workshop

April 7, 2010



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## John Garziglia

### Womble Carlyle Sandridge & Rice, PLLC

John F. Garziglia is a Member of the law firm of Womble Carlyle Sandridge & Rice, PLLC, Washington, DC, concentrating in radio and television broadcasting law. Earlier in his career, he served at the Federal Communications Commission as an attorney in the AM Branch and as a trial attorney in the Hearing Branch of the Mass Media Bureau. Prior to working at the FCC, John worked in the radio broadcasting industry in St. Louis, Washington, and several smaller markets. John has submitted hundreds of FCC filings through the FCC's CDBS for his broadcast station clients.



## Brian Higgins

### Wilkinson Barker Knauer, LLP

Brian Higgins is a partner in the law firm of Wilkinson Barker Knauer, LLP. He has been practicing telecommunications law since 1996, and has provided FCC regulatory compliance support and advice since 1990. He previously served on the Federal Communications Bar Association's Universal Licensing System Task Force, and is very familiar with the Commission's electronic licensing systems.



Karis Hastings

Hogan and Hartson LLP, Counsel





## Joseph M. Davis, President

### Chesapeake RF Consultants LLC

Joseph Davis is a consulting engineer, handling broadcast station FCC licensing matters. He is a Registered Professional Engineer, president of Chesapeake RF Consultants LLC, and works with commercial and noncommercial television and radio station clients nationwide. His practice includes application and exhibit preparation for submission via CDBS on FCC Forms such as 301, 302, 346, 347, 349, and 350. Joe is a member of the Association of Federal Communications Consulting Engineers (AFCCE), and has served as AFCCE's president as well as Chair of the AFCCE CDBS Technical Advisory Committee.



## Thomas S. Dombrosky Jr.

Wiley Rein LLP

Engineering Consultant

Tom Dombrowsky is an Engineering Consultant with the law firm Wiley Rein LLP where he provides technical advice and guidance to clients concerning wireless matters. In particular, Tom specializes in spectrum policy matters, especially with respect to issues that affect commercial mobile service providers. Tom also has extensive experience with the Federal Communications Commission's licensing and auction processes and procedures. Prior to joining Wiley Rein, Tom held several positions within the Federal Communications Commission's Wireless Telecommunications and Private Radio Bureaus. During this time, Tom focused on commercial mobile spectrum policy and licensing matters. Tom has a Bachelor of Science in Electrical Engineering from Lehigh University.



## Troy Langham, Sr. FCC Engineer

### Clear Channel Communications/Radio

Troy Langham works for Clear Channel Radio, serving the past 10 years as the primary person interfacing with the FCC on technical matters on Clear Channel's behalf. Prior to becoming a broadcast engineer in 1982 he was an on air personality in several markets, including markets as large as Dallas, an airborne traffic reporter, program director, and news reporter. In the last decade at Clear Channel Troy has prepared over 500 Broadcast Minor Change applications, an even greater number of license applications, as well as a large number of ASR and ULS applications.



Peter Nordby  
Sitesafe, Inc.  
Representing APCO



## Allison Ellis, Esq.

Ericsson

Allison Ellis is the Director of Regulatory Policy for Ericsson Inc. She has been advising Ericsson on regulatory matters both as in-house counsel for 5 years and as outside counsel for 4 years before that. Allison is responsible for all of Ericsson's Experimental licensing needs and often advises Ericsson's partners on STA and Experimental Licensing requirements.

# Experimental Licensing System Suggested Updates

## EXPERIMENTAL LICENSING SYSTEM SUGGESTED UPDATES



### Improve User-Friendliness

- › De-link pages so that you don't have to go sequentially
- › Create ability to view and edit full application
- › Add a "Submit" tab on each page to fast forward to submission



### Adapt Tools and Minimize Errors

- › Ability to handle Road Shows
  - Series of Locations over Different Dates with Same Specifications
- › Built-in address / coordinate cross check



### Make Information More Accessible

- › Confirmation Number look up
- › All Applications filed under a given FRN
- › Automatic Notification of Grant
- › Confirmation Page - Include dates and location



Allison Ellis, Director Regulatory Policy



## Chris Duffus

### Spectrum Bridge, Inc.

Mr. Duffus is currently the CFO for Spectrum Bridge, a developer of software-based solutions that improve the availability, access and allocation of radio spectrum. Previously he served as the deputy CEO of Finance and Administration for the 2008 Democratic National Convention Committee (DNCC). Prior to his role with the DNCC, Duffus was VP Finance for M2Z Networks, an innovative wireless services company focused on providing free, universal wireless broadband across the United States. Mr. Duffus has also held similar positions at other start-ups including Govolution, a leading provider of electronic payment software and services to the public sector and the banking industries.

# A SECONDARY MARKET VIEWPOINT ON THE DEVELOPMENT OF A CONSOLIDATED LICENSING SYSTEM



Spectrum Bridge's next generation network architecture  
makes more spectrum available for wireless applications

Spectrum Bridge | April 2010



# Company Overview

- Spectrum Bridge, Inc. (“SBI”) develops software-based solutions that improve the availability, access and allocation of radio spectrum
- Largest neutral marketplace for licensed spectrum in the United States
- Significant “greenfield” market demand
- Unique solutions that address the global spectrum scarcity problem

# The Challenge for Wireless Growth

“...smartphones use **50 times more bandwidth...**”

“...the **demand** for wireless spectrum has **increased 30-fold...**”

“...there is a **10 to 1 gap...**”

– Julius Genachowski • Chairman, FCC • January 2010

“iPhone users have downloaded at least 140,000 different apps a total of 3 billion times. Watching broadcasts of Major League Baseball games and studying the globe via Google Earth on a palm-size device **feels like a promise of the future, but the networks delivering all this data are still just catching up with the present.**”

– Apple, Inc. • April 2010

“...We need to explore new ways to **get spectrum into the market...** we need to identify ways we can **drive more efficient users of spectrum** (software, cognitive radio). We need to **think big about ways to allocate spectrum...**”

– Julius Genachowski • Chairman, FCC • August 2009

“...We need a more vibrant **secondary market**. We need to **leverage the spectrum that exists more efficiently**, and we need to encourage new technologies and innovation... **a more thorough database** that can be used on an hour-to-hour, minute-to-minute basis.”

– Meredith Attwell Baker • Commissioner, FCC • November 2009

# SBI Established to Solve the Problem

## Organization

- Established Q1 2007
- Leading provider of spectrum access solutions and technology
- Headquartered in Lake Mary, FL with offices in Washington DC and San Francisco, CA

## Leadership

- 100+ years combined telecom experience
- Track-record of success and innovation; multiple startups with 7 successful exits
- Motorola, Alcatel-Lucent, Mesh Networks, Abovenet

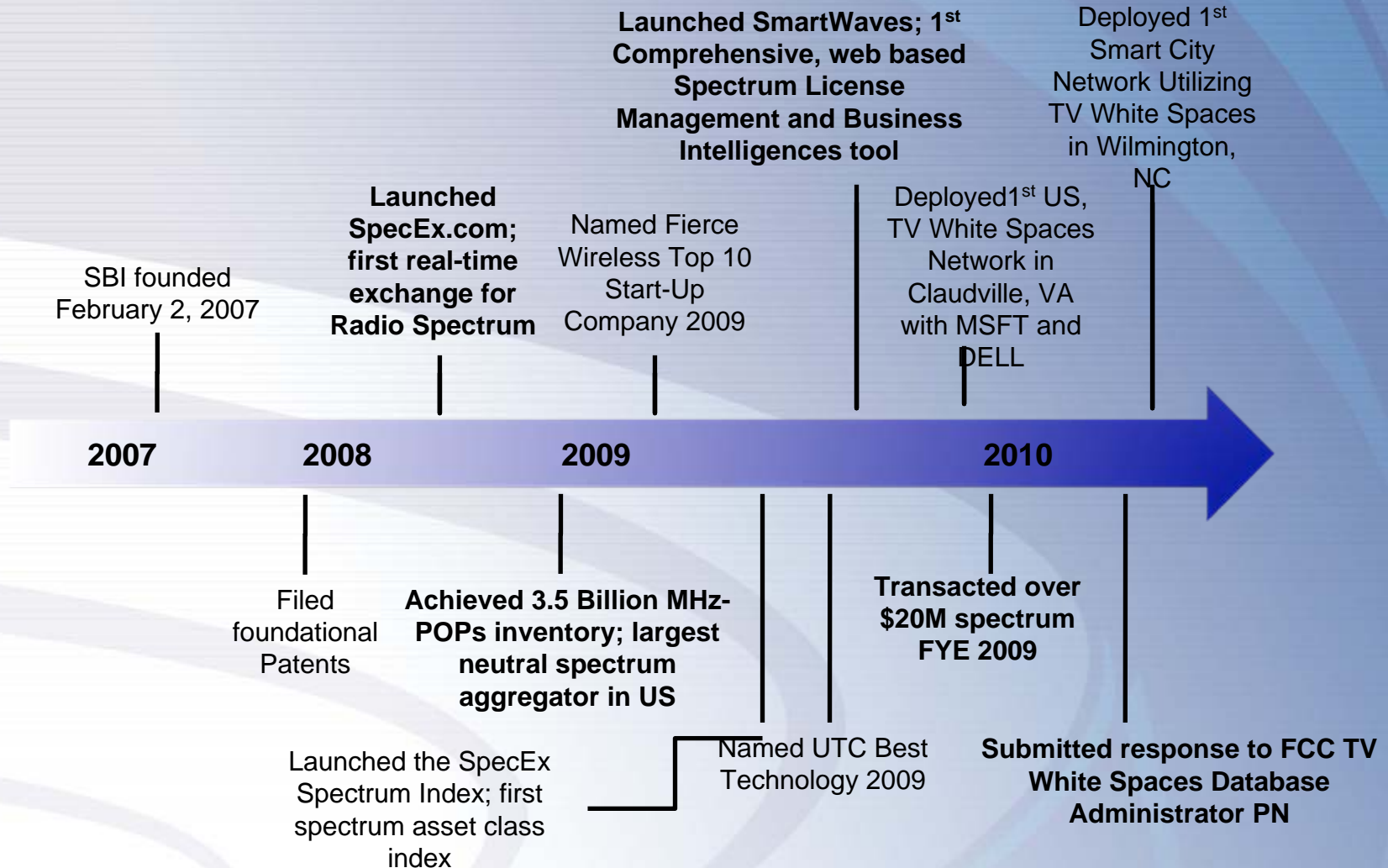
## Credentials

- Largest neutral spectrum aggregator in US
- Deployed first US, TV White Space Network

## Clientele

- Technology: Dell, Microsoft, Motorola
- Telecommunications: Alpha Wireless, Atlantic Communications, BRK Wireless, ESP Wireless, Repeater Networks, The Rural Telecommunications Group, VantagePoint
- Utilities: General Electric, MidAmerican Energy, Progress Energy
- Transportation: BNSF- Burlington Northern & Santa Fe Railway, Union Pacific
- Government and NGO: FCC; Wilmington, NC; Plumas County, CA; TDF Foundation

# Our Progress-To-Date

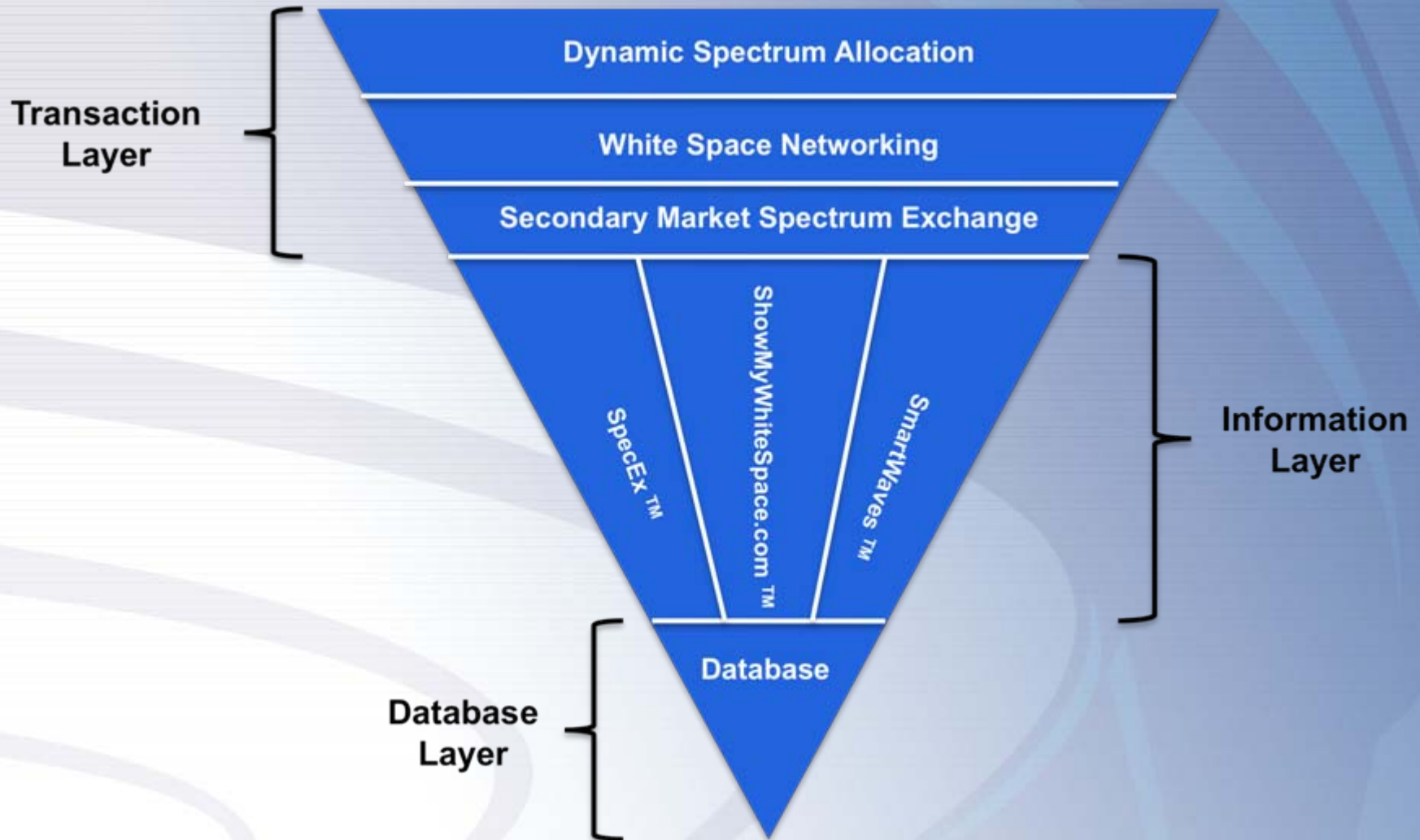


# The Future of Spectrum Databases

- Once the concept of Spectrum Allocation by a database has been established (through TV White Spaces) the next step is to the more generalized use cases
- Secondary Markets will play a major role in additional spectrum availability
- Global regulators driven by the FCC, can ultimately drive greater spectrum allocation; in the order of several GHz



# SBI Database Product Vision





# Benefits of Database Implementation

## Consumer:

Mobile OS



Gaming/Media/Home Networking



Set-Top Box



## Enterprise:

LAN/WAN/WiFi on Steroids



Telemedicine



eLearning



## Carrier:

Last Mile/Backhaul



Smart City/Smart Grid

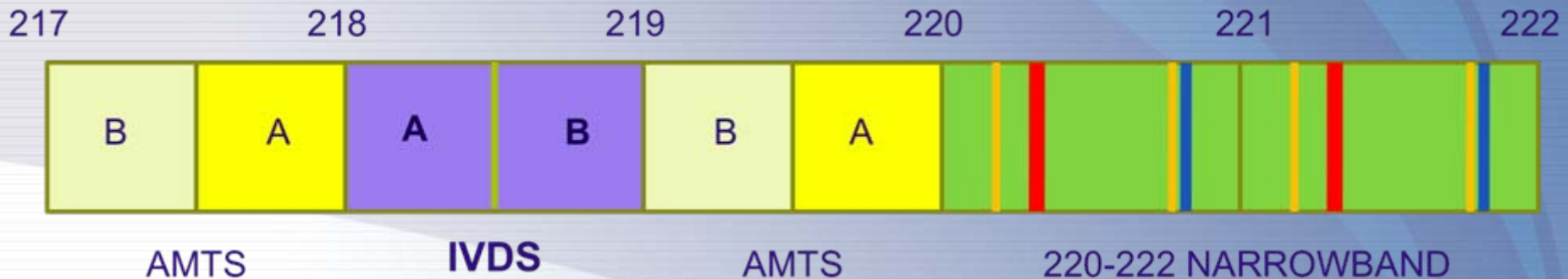


Rural Broadband



# Database Architecture Example

## Frequency Band Reference



- **1MHz IVDS** spectrum that lays between bands that are **currently in use by many Railroads and Utilities**
- **75% of the IVDS licenses on a MHz-POPs basis have been returned** to the FCC or were not purchased at auction



- Rather than re-auction directly, **re-allocate orphaned IVDS spectrum** under a database mechanism like TV White Spaces
- **Allow private sector to utilize fallow spectrum** for current and future business requirements



# Panel Take-Aways

- More and better data availability is good for the market
- Improved quality control provides integrity of information
- Database driven networks are an elegant and pragmatic solution for spectrum allocation
- Promote innovation through trials and test-beds
- **Alignment among policy, technology and industry is a requirement for adoption and success**

# Thank You!

[www.spectrumbridge.com](http://www.spectrumbridge.com)



Mark Gibson

Comsearch

Director, Regulatory Policy

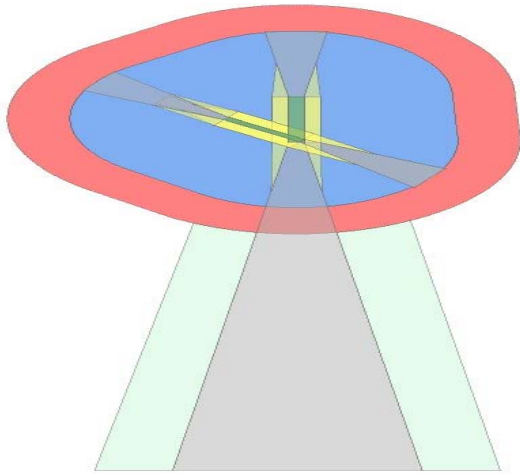


## Katie Venticinque

FAA

### Aeronautical Info Specialist

Mrs. Katie Venticinque has been employed by the Federal Aviation Administration (FAA)'s Air Traffic Service for 14 years. In support of both the FAA's internal and external Obstruction Evaluation Airport Airspace Analysis (OE/AAA) programs, Mrs. Venticinque serves as an operational design subject matter expert (SME). Mrs. Venticinque has played a significant role in designing enhancements that the OE/AAA Programs now deliver to internal and external users nationwide. Mrs. Venticinque continues to have an active role in the ongoing design of enhancements implemented to these programs.



# FAA and FCC Common Concerns for Construction of Antenna Towers

Presented to: **FCC Consolidated Licensing  
System Workshop**

By: **Katie Venticinque  
FAA Obstruction Evaluation Service**

Date: **April 7, 2010**



**Federal Aviation  
Administration**



# The FAA's Role

- **To conduct aeronautical studies and identify the effect of construction or alteration on operational procedures, determine possible hazardous effect on air navigation, identify the aviation need for obstruction marking and lighting, determine measures to ensure continued safety of air navigation and accomplish charting and other notification to airmen of obstructions in the navigable airspace.**



# The FCC's Role

- **To issue licenses to radio stations when it is found that the public interest, convenience and necessity would be served thereby, and to require the painting, and/or illumination of antenna structures if and when in its judgment such structures constitute, or there is reasonable possibility that they may constitute, a menace to air navigation.**



# Code of Federal Regulations

## FAA Title 14 CFR Part 77

**§ 77.17** Form and time of notice

**§ 77.13** Construction or alteration  
requiring notice

14 CFR Part 77 Subpart F-Establishment  
of Antenna Farm Areas  
**§ 77.73** General provisions

**§ 77.15** Construction or alteration not  
requiring notice

FAA Advisory Circular 707460-1K,  
Obstruction Marking and Lighting

## FCC Title 47 CFR Part 17

**§ 17.4** Antenna Structure Registration

**§ 17.7** Antenna Structures requiring  
notification to the FAA

**§ 17.8** Establishment of antenna farm  
areas

**§ 17.14** Certain antenna structures  
exempt from notification to the FAA

Title 47 CFR Part 17 Subpart C-  
Specifications for Obstruction  
Marking and Lighting of Antenna  
Structures





# FAA Notice Criteria Tool

## Notice Criteria Tool

The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference [CFR Title 14 Part 77.13](#).

You must file with the FAA at least 30 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...)
- your structure will emit frequencies, and does not meet the conditions of the [FAA Co-location Policy](#)
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your structure will be on an airport or heliport

If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the [Air Traffic Areas of Responsibility map](#) for Off Airport construction, or contact the [FAA Airports Region / District Office](#) for On Airport construction.

The tool below will assist in applying the appropriate slope calculations per Part 77 Notice Criteria.

Latitude:	<input type="text"/> Deg <input type="text"/> M <input type="text"/> S <input type="button" value="N"/>
Longitude:	<input type="text"/> Deg <input type="text"/> M <input type="text"/> S <input type="button" value="W"/>
Horizontal Datum:	<input type="button" value="NAD83"/>
Site Elevation (SE):	<input type="text"/> (nearest foot)
Structure Height (AGL):	<input type="text"/> (nearest foot)
Traverseway:	<input type="button" value="No Traverseway"/> (Additional height is added to certain structures under 77.13(a)(3))
Is structure on airport:	<input checked="" type="radio"/> No <input type="radio"/> Yes
<input type="button" value="Submit"/>	

- The requirements for filing with the FAA for proposed structures vary based on a number of factors; height, proximity to an airport, location and frequencies emitted from the structure. The tool will assist in applying the appropriate notice criteria

# FCC's TOWAIR Tool

## TOWAIR Determination

[? HELP](#)

The FCC does not require each antenna structure to be registered. This screen enables the user to enter and submit key information about their antenna structure in order to determine whether or not registration with the FCC is necessary. After submitting the form, you receive one of two reply messages:

- The antenna structure requires registration. A list of reasons is provided. Or
- The antenna structure does not require registration. A list of reasons is provided.

For more details on the FCC rules on antenna structure registration see the [Code of Federal Regulations \(CFR\) 47 Part 17.7](#) (Revision 10/01/1996).

### Tower Construction Notifications

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

DETERMINE if Registration is Necessary	
NAD83 Coordinates ( <a href="#">Convert from NAD27</a> )	
Latitude	<input type="text"/> ° <input type="text"/> ' <input type="text"/> " N (+) ▾
Longitude	<input type="text"/> ° <input type="text"/> ' <input type="text"/> " W (+) ▾
Measurements	
Measurement System	Meters ▾
Overall Structure Height (AGL)	<input type="text"/>
Support Structure Height (AGL)	<input type="text"/>
Site Elevation (AMSL)	<input type="text"/>
Structure Type	
TOWER - Free standing or Guyed Structur ▾	
<input type="button" value="SUBMIT"/> <input type="button" value="RESET"/>	

- The FCC does not require each antenna structure to be registered. This screen enables the user to enter and submit key information about their antenna structure in order to determine whether or not registration with FCC is necessary

# Both FAA and FCC Tools

- **Will provide results indicating if the structure requires filing and the reason(s)**
- **Will provide results indicating when the structure does not require filing**
- **Both tools calculate the same criteria set out in 47 CFR Section 17.7 and 14 CFR Section 77.13**



# Concerns

- **The FCC TOWAIR tool uses a download from the FAA for airport data. This download is obtained by the FCC every 56 days**
- **Providing Airport Master Record data to the FAA is mandatory in order to have the airport on file with the FAA and entered into the National Airspace System**
- **The FAA Notice Criteria Tool uses an active FAA database that can access updated airport data provided to the FAA immediately**

# Summary

- **FCC TOWAIR results state, in pertinent part, that a finding by TOWAIR is not conclusive and it is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA**
- **The FAA supports this finding and provides the Notice Criteria Tool to determine if an aeronautical study is required**

# Proposal

- **The FAA proposes that the FCC TOWAIR tool point to the FAA's Notice Criteria Tool. Determining notice requirements based on criteria described in 14 CFR Part 77.13, and incorporated into 47 CFR Part 17.7, could then be deemed definitive if provided by the FAA**



# Please visit the FAA's Obstruction Evaluation Service at: <https://oeaaa.faa.gov>

Presented to: **FCC Consolidated Licensing  
System Workshop**  
By: **Katie Venticinque**  
**Obstruction Evaluation Service**

Date: **April 7, 2010**



**Federal Aviation  
Administration**





## Connie Durcsak

PCIA

### Senior Director, Industry Services

Ms. Durcsak is responsible for the delivery of services to PCIA's members and the broader industry. Accordingly, she oversees the development and execution of PCIA's advocacy strategy as well as the performance of PCIA's Spectrum Management group. Prior to joining PCIA, Durcsak served as a Senior Process Engineer with RGS Associates and as a Principal Consultant with PricewaterhouseCoopers. In these roles, she provided management consulting services to public and private sector clients and was frequently selected to lead large, complex multimillion dollar projects. Durcsak holds an MA in business (human performance systems) from Marymount University a BA and a Bachelor of Education both from Acadia University in Nova Scotia, Canada. She also earned a Post Baccalaureate Certification in total quality and productivity management from the Technical University of Nova Scotia.





## Larry S. Solomon

### United States Coast Guard

Larry Solomon is currently Spectrum Management and Telecommunications Policy Counsel at the United States Coast Guard. He has been with the Coast Guard for the past 6 years. Prior to the Coast Guard, Larry was in private practice specializing in telecommunications law.



## Linda Braboy

Bennet and Bennet / Rural Telecom Group (RTG)

Senior paralegal with the law firm of Bennet & Bennet, with 20 years experience in the telecommunications field. Bennet & Bennet, PLLC is a full service telecommunications law firm specializing in the representation of rural telephone companies and telephone cooperatives.



Brennan T. Price

ARRL, the national association for Amateur Radio  
Chief Technology Officer



## Donald Vasek

### Utility Telecom Council

Donald Vasek is the Director of Spectrum Services for the Utilities Telecom Council (UTC). He has over 30 years experience in the Private Land Mobile industry, specializing in spectrum management and related regulatory issues. Previous positions were held with EWA and PCIA/NABER.



## David Redl

### CTIA

David Redl is Director of Regulatory Affairs at CTIA – The Wireless Association®. Since joining CTIA in 2007, Mr. Redl has worked on a wide range of issues involving wireless technology, spectrum, broadband, and regulatory mandates. Mr. Redl received his B.A. in Journalism and his B.A. in Political Science from the Pennsylvania State University and his J.D. from the Catholic University of America with a certificate from the Institute for Communications Law Studies. He is a member of the New York and District of Columbia Bars and the Federal Communications Bar Association.



## Joan Griffin

Kelley Drye and Warren, LLP

Joan Griffin is Of Counsel to the Telecommunication Practice Group at Kelley Drye & Warren. She has represented wireline, wireless, and satellite carriers on a variety of issues before the FCC for almost 30 years. Joan has extensive experience with many of the Commission's licensing databases.



## Peter Tannenwald

### Fletcher, Heald & Hildreth, P.L.C

Peter Tannenwald is a Member of the law firm of Fletcher, Heald & Hildreth, P.L.C., with offices in Rosslyn, Virginia. He has practiced before the Commission for 42 years and has had clients in the the radio and TV broadcast, telephone, new technology, equipment manufacturing, and satellite industries. He prepares and files many applications and rule making pleadings himself and has hands-on experience with ECFS, CDBS, MyIBFS, ULS, ASR, GenMen, Children's TV Reports, Broadcast Call Sign requests, CORES, Fee Filer and the Red Light System, Consumer Complaints, and OET Authorizations, Knowledge Database Queries, and Experimental Licensing.

